

Supplemental material for publication

S1. 5-HIAA, 5-HIAA/5-HT ratio, DA, DOPAC, DOPAC/DA ratio, NGF, BDNF, and corticosterone on P12, 16, and 21

	P12 SAL+SAL	P12 SAL+MDMA	P12 2x5 CIT+SAL	P12 2x5 CIT+MDMA
5-HIAA				
Hippocampus	0.20 ± 0.01	0.10 ± 0.01 *	0.13 ± .02 *	0.09 ± 0.014 *
Entorhinal cortex	0.08 ± 0.01	0.05 ± 0.01 *	0.04 ± 0.01 *	0.03 ± 0.01 *
Neostriatum	0.29 ± 0.02	0.14 ± 0.02 *	0.17 ± 0.02 *	0.17 ± 0.02 *
5-HIAA/5-HT				
Hippocampus	0.96 ± 0.09	1.5 ± 0.09 *	0.87 ± 0.09 #	0.62 ± 0.086 * #
Entorhinal cortex	0.61 ± 0.07	0.91 ± 0.07 *	0.48 ± 0.07 #	0.44 ± 0.07 #
Neostriatum	2.15 ± 0.51	4.34 ± 0.51 *	2.28 ± 0.51 #	1.76 ± 0.51 #
DA				
Striatum	4.03 ± 0.28	4.73 ± 0.28	3.92 ± 0.28 #	4.52 ± 0.28
DOPAC				
Striatum	0.77 ± 0.05	0.59 ± 0.05 *	0.77 ± 0.05 #	0.57 ± 0.05 *
DOPAC/DA				
Striatum	0.19 ± 0.01	0.13 ± 0.01 *	0.20 ± 0.01 #	0.13 ± 0.01 *
NGF				
Hippocampus	89 ± 20	79 ± 20	72 ± 20	100 ± 20
Striatum	16 ± 4	18 ± 4	16 ± 4	22 ± 4
BDNF				
Hippocampus	45 ± 2	41 ± 2	47 ± 2	43 ± 2
Striatum	13 ± 7	33 ± 9	19 ± 8	15 ± 9
Corticosterone				
Plasma	7.04 ± 0.82	8.13 ± 0.82	6.79 ± 0.82	6.32 ± 0.82
	P16 SAL+SAL	P16 SAL+MDMA	P16 2x5 CIT+SAL	P16 2x5 CIT+MDMA
5-HIAA				
Hippocampus	0.19 ± 0.02	0.09 ± 0.02 *	0.23 ± 0.02 #	0.14 ± 0.02
Entorhinal cortex	0.23 ± 0.03	0.13 ± 0.03 *	0.22 ± 0.03	0.17 ± 0.03 * #
Neostriatum	0.5 ± 0.04	0.27 ± 0.04 *	0.54 ± 0.04 #	0.44 ± 0.04 #
5-HIAA/5-HT				
Hippocampus	0.94 ± 0.1	1.3 ± 0.1 *	1.26 ± 0.1 *	1.09 ± 0.1
Entorhinal cortex	1.04 ± 0.23	1.96 ± 0.23 *	1.02 ± 0.23 #	1.02 ± 0.23 #
Neostriatum	2.21 ± 0.83	3.49 ± 0.83	2.21 ± 0.83	1.51 ± 0.83
DA				
Striatum	6.36 ± 0.48	5.65 ± 0.48	5.54 ± 0.48	5.43 ± 0.48
DOPAC				

Striatum	1.25 ± 0.1	1.16 ± 0.1	0.99 ± 0.1	1.04 ± 0.1
DOPAC/DA				
Striatum	0.20 ± 0.01	0.20 ± 0.01	0.19 ± 0.01	0.19 ± 0.01
NGF				
Hippocampus	160 ± 28	180 ± 28	220 ± 28	240 ± 28 * #
Striatum	16 ± 5	17 ± 5	24 ± 5	22 ± 5
BDNF				
Hippocampus	48 ± 3	53 ± 3	48 ± 3	47 ± 3
Striatum	14 ± 6	14 ± 7	13 ± 7	21 ± 8
Corticosterone				
Plasma	18.35 ± 3.27	26.77 ± 3.27	18.27 ± 3.46	17.27 ± 3.27
	P21 SAL+SAL	P21 SAL+MDMA	P21 2x5 CIT+SAL	P21 2x5 CIT+MDMA
5-HIAA				
Hippocampus	0.43 ± 0.04	0.29 ± 0.04 *	0.54 ± 0.04 *	0.41 ± 0.04
Entorhinal cortex	0.23 ± 0.02	0.13 ± 0.022 *	0.25 ± 0.02 *	0.20 ± 0.02 *
Neostriatum	0.5 ± 0.06	0.44 ± 0.06	0.79 ± 0.06 * #	0.66 ± 0.06 #
5-HIAA/5-HT				
Hippocampus	1.21 ± 0.09	1.31 ± 0.09	1.59 ± 0.09 *	1.27 ± 0.09
Entorhinal cortex	0.61 ± 0.11	1.03 ± 0.12	0.91 ± 0.12	0.85 ± 0.11
Neostriatum	2.40 ± 0.27	2.36 ± 0.27	2.77 ± 0.27	1.98 ± 0.27
DA				
Striatum	5.36 ± 0.43	5.64 ± 0.43	5.7 ± 0.43	4.97 ± 0.43
DOPAC				
Striatum	1.13 ± 0.12	1.71 ± 0.12 *	1.19 ± 0.12 #	1.55 ± 0.12 *
DOPAC/DA				
Striatum	0.22 ± 0.02	0.31 ± 0.02 *	0.21 ± 0.02 #	0.31 ± 0.02 *
NGF				
Hippocampus	130 ± 32	130 ± 32	190 ± 32	160 ± 32
Striatum	24 ± 9	25 ± 9	26 ± 9	25 ± 9
BDNF				
Hippocampus	51 ± 13	68 ± 13	50 ± 13	63 ± 13
Striatum	16 ± 11	27 ± 7	21 ± 6	44 ± 11
Corticosterone				
Plasma	15.15 ± 7.28	60.22 ± 7.28 *	11.4 ± 7.28 #	43.38 ± 7.28 *

Monoamines and metabolites (ng/mg tissue); NGF and BDNF (pg/mg protein); corticosterone (ng/ml) *different from SAL+SAL; #different from SAL+MDMA ($p \leq 0.05$). n = 6-8/treatment. Main effect of Treatment: (**P12**) hippocampus (HIP) 5-HIAA ($F(3,20) = 13.95$, $p < 0.0001$); entorhinal cortex (EC) 5-HIAA ($F(3,20) = 6.35$, $p < 0.003$); neostriatum (STR) 5-HIAA ($F(3,21) = 32.16$, $p < 0.0001$); HIP 5-HIAA/5HT ($F(3,20) = 18.39$, $p < 0.0001$); EC 5-HIAA/5HT ($F(3,20) = 8.08$, $p < 0.001$); STR 5-HIAA/5HT; ($F(3,21) = 5.20$, $p < 0.0076$) STR DOPAC ($F(3,21) = 7.66$, $p < 0.0012$); STR DOPAC/DA ($F(3,21) = 15.65$, $p < 0.0001$); (**P16**) HIP 5-HIAA ($F(3,21) = 11.02$, $p < 0.0001$); EC 5-HIAA ($F(3,20) = 13.63$, $p < 0.0001$); STR 5-HIAA

($F(3,21) = 18.75$, $p < 0.0001$); HIP 5-HIAA/5HT ($F(3,21) = 4.78$, $p < 0.01$); EC 5-HIAA/5HT ($F(3,21) = 9.48$, $p < 0.0004$); HIP NGF ($F(3,21) = 4.71$, $p < 0.0114$); (**P21**) HIP 5-HIAA ($F(9,53) = 9.5$, $p < 0.0001$); EC 5-HIAA ($F(3,16) = 15.50$, $p < 0.0001$); STR 5-HIAA($F(3,18) = 10.08$, $p < 0.0004$); HIP 5-HIAA/5HT ($F(9,53) = 2.09$, $p < 0.0465$); STR DOPAC ($F(3,18) = 7.06$, $p < 0.0025$); STR DOPAC/DA ($F(3,18) = 18.31$, $p < 0.0001$); corticosterone ($F(3,18) = 11.65$, $p < 0.0002$).

S2. 5-HIAA, 5-HIAA/5-HT ratio, DA, DOPAC, DOPAC/DA ratio, on P60

	P60 SAL+SAL	P60 SAL+MDMA	P60 2x5 CIT+SAL	P60 2x5 CIT+MDMA
5-HIAA				
Hippocampus	0.47 ± 0.03	0.38 ± 0.03	0.42 ± 0.03	0.41 ± 0.03
Entorhinal cortex	0.29 ± 0.09	0.23 ± 0.09	0.33 ± 0.09	0.27 ± 0.09
Neostriatum	0.76 ± 0.06	0.65 ± 0.06	0.75 ± 0.06	0.77 ± 0.06
5-HIAA/5-HT				
Hippocampus	1.39 ± 0.17	1.42 ± 0.17	1.74 ± 0.17	1.43 ± 0.17
Entorhinal cortex	6.30 ± 5.32	10.92 ± 5.32	6.68 ± 4.61	8.41 ± 5.32
Neostriatum	2.33 ± 0.40	2.63 ± 0.40	1.86 ± 0.40	2.87 ± 0.40
DA				
Striatum	9.00 ± 1.22	10.00 ± 1.22	8.77 ± 1.22	9.20 ± 1.22
DOPAC				
Striatum	2.40 ± 0.21	2.54 ± 0.21	2.06 ± 0.21	2.45 ± 0.21
DOPAC/DA				
Striatum	0.30 ± 0.04	0.30 ± 0.04	0.25 ± 0.04	0.28 ± 0.04

Monoamines and metabolites (ng/mg tissue); n = 8/treatment